

ABSTRACT OF THE DISCLOSURE

A novel method for utilizing the immune apparatus to remove and/or down-regulate self-proteins. The method consists in providing a self-protein analog by molecular biological means by substitution of one or more peptide fragments of the self-protein by corresponding
5 number of peptides known to contain immunodominant foreign T-cell epitopes, said substitution being carried out so as to essentially preserve the overall tertiary structure of the original self-protein. This render the self-protein immunogenic and leads to a rapid induction of high-titered autoantibodies against the native self-proteins. The modulated self-proteins
10 can be used to prepare vaccines against undesirable proteins in humans or animals, said vaccine being useful as therapeutics against a number of diseases, e.g. cancer, chronic inflammatory diseases such as rheumatoid arthritis and inflammatory bowel diseases, allergic symptoms or diabetes mellitus.

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